

Greater Glasgow and Clyde NHS Board

Board Meeting

15 December 2015

Board Paper No: 15/62

Interim Director of Public Health

Public Health Screening Programmes Annual Report 1 April 2014 to 31 March 2015

RECOMMENDATION

Members are asked to **note** the attached *Public Health Screening Programmes Annual Report from 1 April 2014 to 31 March 2015*

INTRODUCTION

This annual report presents information about the following screening programmes offered to residents across NHS Greater Glasgow and Clyde (NHSGGC) for the period 2014/15:

1. Cervical Screening
2. Breast Screening
3. Bowel Screening
4. Pregnancy Screening:
 - Communicable Diseases in Pregnancy
 - Haemoglobinopathies screening
 - Down's syndrome and other congenital anomalies
5. Newborn Screening:
 - Newborn Bloodspot
 - Universal Newborn Hearing
6. Diabetic Retinopathy Screening
7. Pre-School Vision Screening
8. Aortic Abdominal Aneurysm Screening

The full report is available at <http://www.nhsggc.org.uk/your-health/public-health/public-health-screening-unit/reports/>

The report includes analysis on uptake among people with learning disabilities. Screening activity by ethnicity is available for Pregnancy and Newborn and Diabetic Retinopathy Screening programmes.

Table A shows the number of people eligible in NHS Greater Glasgow and Clyde in 2014/15 that were offered screening tests, the number of people who had taken up the offer of screening and the uptake rates for each of the screening programmes.

Table A: NHSGGC screening programmes uptake rates for the period 1 April 2014 to 31 March 2015

Screening programme	Total eligible population	Total number Screened	HIS Target	% Uptake ⁵
Cervical screening ¹	331,326	234,755	80%	70.9%
Breast screening ²	132,178	84,864	70%	64.2%
Bowel screening ³	380,902	203,166	60%	53.0%
Pregnancy screening:				
• Communicable diseases in pregnancy ⁴	16,224	16,161	n/a	99.0%
• Down's syndrome	13,518	9,741	n/a	72.1%
• Haemoglobinopathies	13,518	13,159	n/a	97.3%
Newborn screening:				
• Newborn bloodspot	12,453	12,286	n/a	98.7%
• Newborn hearing	12,591	12,283	n/a	97.6%
Pre-school vision screening	12,947	11,205	n/a	86.5%
Diabetic retinopathy Screening	63,173	53,325	80%	84.4%
Abdominal Aortic Aneurysm Screening	5,616	4,493	70%	80.0%

Sources: NHSGGC bowel Screening IT system; West of Scotland Breast Screening; Scottish Cervical Call Recall System; PNBS; National Newborn Screening Laboratory; West of Scotland Prenatal Screening Laboratory; AAA IT system

Notes:

1. Target population – number of women screened within 5.5 years
2. Target population – number of people screened within 3 years
3. Target population – number of people screened within 2 years
4. Percentage uptake of each of the tests has been calculated by dividing the number requesting tests by the total number of samples. Also include test from Argyll (NHS Highland residents)
5. Screening activity covers the period to 31 March 2015

1. CERVICAL SCREENING

- 344,525 women were eligible to be invited to participate in the cervical screening programme over three years.
- In 2014/15, the 5.5 year uptake rate calculated for NHSGGC was 70.9%. This was below the minimum standard of 80%. This represented an overall 3.1% decrease in uptake since 2013/2014 when uptake was 74%.
- The lowest uptake of 60.3% was in Glasgow North West sector. East Renfrewshire had the highest uptake at 79.4%.
- 61,255 (18.5%) did not take up the invitation to have a smear, despite an invitation letter and two reminders being sent to them. They were classified as defaulters.
- The lowest 5.5 year uptake in 2014/15 was among the 21 to 24 year olds at 52.6% when only no cervix exclusion was applied. This represented a 2% decrease on previous year's uptake of 54.6%.
- The lowest 5.5 year uptake was among women resident in the most SIMD3 quintile neighbourhoods at 69% when the no cervix exclusion was applied. This represented a 3.7% decrease from previous year's uptake of 72.7%.
- Uptake was higher at 75.5% among women in the least deprived areas and represented a decrease in uptake of 2.9% compared to previous year's uptake of 78.4%.
- The total number of smear tests processed in 2014/15 was 101,000 and represented an increase of 2% from the 98,959 smears processed in 2013/14.
- The overall percentage of unsatisfactory smears reduced to 2.3% and was the lowest rate in Scotland.
- 9.7% of smears were reported as abnormal in 2014/15 representing a decrease of 0.5% since 2013/14.
- 90.3% of smears processed were reported to be negative; 3.8% were borderline squamous; 4.3% mild dyskaryosis and 1.3% to have moderate to severe dyskaryosis.
- The performance of colposcopy units against benchmarking standards is reviewed annually at the NHSGGC Colposcopy User Group. Where standards are not within the interquartile range, measures are identified and action plans introduced to improve performance.
- 4,951 women were referred to colposcopy for treatment, 73% (3,252) of patients were seen within 4 weeks; 19.5% (870) were seen within 8 weeks and 7.4% (331) were seen more than 8 weeks.
- In 2014, we reviewed the notes of 83 women who developed invasive cervical cancer and had a pathology diagnosis made in NHS Greater Glasgow and Clyde laboratories
- 40 of the 83 (48%) cancer cases were screen detected.

- Over the five years audited, 57 (13.6%) women out of the 417 who developed cancer had never had a smear; 157 (37.6%) had complete smear histories and 194 (46.5%) of women had incomplete smear histories.
- In 2013, the most recent year for which completed data is available, the number of new cervical cancers registered among NHSGGC residents was 65. This gives a standardised incidence rate of 11.2 per 100,000 per population which is lower than that for Scotland at 11.3.
- In 2013, 20 women with a diagnosis of cervical cancer died in NHSGGC. This gives a standardised rate of 3.3 per 100,000 population equal to the Scotland rate of 3.3 per 100,000.
- NHSGGC Cervical screening “smear” campaign 2014 was repeated from 19 January to 23 February 2015. The campaign consisted of using the locally developed resources to again target young women to make an appointment to go for their “smear” test.
- This resulted in an increase of 5.9% (800) of smear samples received by the laboratory. However, the numbers of samples were too small to have an effect on the overall uptake of the cervical screening programme because the campaign was short lived. A sustained campaign such as National Detect Cancer Early bowel screening campaign is needed to make any significant impact on cervical screening uptake.

2. BREAST SCREENING

- 132,178 women registered with a practice in NHSGGC were invited to attend breast screening over three years.
- 84,864 (64.2%) women attended breast screening during the previous three years. This represents a decrease of 3.1% since 20011/14. Only East Renfrewshire met and exceeded the minimum standard of 70%.
- 779 (0.6%) women were diagnosed with breast cancer following screening.
- Uptake for the three year rounds 2004/07 to 2008/11 were slightly above the minimum standard of 70% at 71%. Since then uptake has declined to 64.2% in 2012/2015.
- 74,178 (96.2%) of women received their screening invitation within three years. This exceeded the minimum standard of 90%.
- Of the 25,823 women invited for their first appointment, 62.9% took up the invitation to attend for breast screening. Lowest uptake was among women living in Renfrewshire and Glasgow North West areas at 59.6% and 59.4% respectively. Highest uptake was in the East Renfrewshire area at 75.4%.
- Of the 673 women with learning disabilities, only 307 (45.6%) participated in breast screening.
- In 2013, the number of new breast cancers registered in NHSGGC was 962. This gives a standardised incidence rate of 168.6 per 100,000 per population which is slightly lower than that for Scotland (168.8).

- In 2013, there were 200 deaths from breast cancer, giving a standardised rate of 32.3 per 100,000 population. This is lower than that for Scotland (36.4).
- During 2012 to 2014, 2,951 breast cancers were detected. 787 (50.7%) of the cancers diagnosed among women in the age group eligible for screening were detected through the breast screening programme, while 766 (49.3%) breast cancers were diagnosed following symptomatic presentations. Of these, 359 (12.2%) cases were potential interval cancers.
- NHSGGC piloted a three month local social marketing campaign in Glasgow North East to reinforce the national Detect Cancer Early breast cancer messages and encourage women to take up breast screening. This involved telephone/text appointment reminder; local awareness; radio and cinema advertising; competition; pharmacy prescription bags with key messages.
- The results of the campaign showed an overall 2.2% increase in uptake of 10 pilot practices, with one practice achieving a 6.2% increase.
- Simple lifestyle changes by exercising, maintaining a healthy weight and reducing alcohol intake can reduce the risk of breast cancer.

3. BOWEL SCREENING

- 380,902 NHSGGC residents were invited to participate in the Bowel Screening programme. 127,890 (33.5%) lived in the most deprived areas.
- 203,166 screening kits were completed and returned to the Bowel Screening laboratory for analysis. This gives an estimated uptake of 53.3%, representing an increase of 6,844 (1.8%) since 2013/2014 when uptake was 51.5%. This is below the Scottish wide average of 57.6% and the NHS HIS target of 60%.
- Uptake varied across all deprivation categories with lowest uptake in the most deprived areas at 44.4% compared to highest uptake of 64.7% in the least deprived areas.
- The lowest uptake was in the most deprived areas of Glasgow North East at 43.2%. Highest uptake was among residents living in the more affluent areas of West Dunbartonshire at 67% and East Dunbartonshire (67.1%).
- Only East Dunbartonshire and East Renfrewshire HSCP exceeded the minimum standard of 60%, where uptake was 63.4% and 61.3% respectively.
- The percentage uptake among females at 55.9% was higher than the male population at 50.6%. The lowest uptake of 41.9% was among males aged 50-54 year olds.
- 4,741 patients screened positive, 4,241 patients were pre-assessed prior to colonoscopy. 458 patients declined or did not respond to the offer of a colonoscopy pre-assessment.
- The overall positivity rate was 2.3% and it was higher among men at 2.9% compared to women at 1.9%. The overall Scottish national average was 2.5 (2.49% in men and 1.6% in women) (ISD, 2015). Compared to all other groups, males aged 70 to 74 had the highest positivity rate of 4.1%.

- 4,241(89.5%) patients completed colonoscopy investigations by 31 March 2015.
- Of the 2,121 people with learning disability invited to take part in the bowel screening programme, 33.3% (670) completed the bowel screening test. This represented an increase of 3% from previous year's uptake of 30.3%. No cancer was diagnosed following investigations.
- 60.1% of men and 42.8% of women who underwent colonoscopies had polyps. Adenomas were diagnosed in 46.3% of men and 32.3% of women.
- 191 cancers were detected.
- 34.5% (65) of all cancers were diagnosed in the early stages. The highest proportion of cancers diagnosed was in both most and least deprived groups. These represented 56% (107) of the overall total.
- In 2013, the most recent year for which completed data is available, the number of new colorectal cancers registered in NHSGGC was 412 for men and 344 for females. This gives a standardised incidence rate of 97.1 and 61.5 respectively per 100,000 populations. This is higher than that for Scotland for males at 95.3 and lower than the Scottish rates for females at 62.5 per 100, 000.
- In 2013, the number of deaths from colorectal cancer in NHSGGC was 203 for male population and 176 in the female population. This gives a standardised rate of 48.5 and 28.7 respectively per 100,000 populations which is higher than the Scotland rates of 42.3 and 25.2 respectively.

4. PREGNANCY SCREENING

- Of the 16,397 women booked to attend antenatal clinics, 13,518 (89.2%) were NHSGGC residents.
- 74.9% (10,122) were British, 5.5% (747) were Pakistani and 4.3% (579) were East European.
- 78.6% (10,630) of first antenatal booking appointments were offered within 12 weeks gestational age and 8.37% (1,132) between 13 to 16 weeks gestational age.
- Only 45% (6,083) of pregnant women had a normal weight at the time of their first antenatal booking appointment. 50.6% (6,843) of pregnant women were overweight. Of the 6,438 who were overweight, 22.3% (3,019) were obese or severely obese.
- Of the 13,518 women booked for their first antenatal screening, 97.3% (13,159) had taken up haemoglobinopathies screening.
- Uptake was greater than 99% for all four of the communicable diseases screening tests.
- Screening identified 22 women infected with HIV (18 of these were previously known), 66 women infected with hepatitis B (43 were previously known) and 7 women who had syphilis. 2,126 women (13.1% were identified as susceptible to rubella and were offered immunisation with MMR vaccine after delivery.

- 9,741 samples were tested for Down syndrome, representing an overall uptake of 72.1%. 7,391 (54.7%) samples were taken from women in their first trimester and 2,350 (17.4%) samples were taken from women in the second trimester.
- 2.1% of women were assigned to the 'higher chance' of Down syndrome group in first trimester screening and 3.7% of women were assigned to the 'higher chance' of Down syndrome group following second trimester screening.
- 214 amniocentesis samples were analysed by the Cytogenetic Laboratory. Some women whose indication for amniocentesis has been recorded as "maternal age" have also been screened. Thirty-eight abnormalities were detected (17.76% of samples) and 23 of those (10.75% of total tests) had a diagnosis of trisomy (Down Syndrome).
- 140 chorionic villus biopsies were analysed by the Cytogenetic Laboratory in 2014/15. Forty-nine abnormalities were detected (35% of tests) and 32 of those (22.9% of tests) had a diagnosis of trisomy (Down Syndrome).
- 75.4% of pregnant women had taken up congenital anomalies screening.
- Of the 10,199 fetal anomaly scans performed, 151 anomalies were detected and of that number 54 were confirmed. The outcomes for 43 screen detected anomalies are not known.
- An audit was undertaken of all live-births, stillbirths, fetal losses and terminations of pregnancy between 1 April 2014 and 31 March 2015 that were associated with one or more congenital abnormalities.
- A total of 346 cases with congenital anomalies were identified from 345 pregnancies.

5. NEWBORN SCREENING

- Bloodspot screening: 12,286 babies resident in NHSGGC were screened, that is 98.7% of the total eligible population of 12,453.
- Eight babies were diagnosed with congenital hypothyroidism, three babies with PKU (phenylketonuria); (seven babies with cystic fibrosis; four babies with sickle cell disease, 1 baby with MCADD and 68 babies were identified as carriers for haemoglobinopathies.
- 72.7% of babies screened had white UK ancestry, 7% had South Asian ancestry and 5.4% had mixed background ancestry.
- Of the 14,300 bloodspot samples received, 14,214 were normal. 227 (1.6%) samples could not be analysed due to insufficient amounts of blood on the bloodspot card and required repeat bloodspot screening tests to be carried out on babies.
- 77 (0.5%) samples received had taken more than seven days to arrive at the laboratory.
- 12,591 babies were eligible for hearing screening, 12,283 were screened for hearing loss giving an uptake of 97.6%.
- 1,290 (9.2%) babies required a second stage follow up and, of these, 166 (1.3%) babies were referred to audiology. 17 babies were confirmed with a hearing loss (0.4% of the

screened population): 12 babies had confirmed bilateral hearing loss and 5 babies had confirmed unilateral hearing loss.

- 308 (2.6%) babies did not complete the screening programme. These included babies who did not attend for screening, are deceased or have moved away from their current home address or transferred to another Board area.

6. PRE-SCHOOL VISION SCREENING

- 12,947 children aged between four to five years old were identified using the Community Health Index System as being eligible for pre-school vision screening. This represents a 0.5% decrease from previous year 2013/14.
- 40.9% (5,292) of children live in the most deprived areas, with the largest proportion living in the Glasgow area
- 77.2% (9,994) of children were registered with a nursery. Of the 2,953 (22.8%) children not registered with a nursery, 1,835 (62.1%) were from Glasgow City CHP sectors.
- 98.6% of children registered with a nursery had a screening test. Only 45.7% of children not registered with a nursery have been screened.
- 11,205 children were screened for a visual abnormality, giving an overall uptake of 86.5%.
- Uptake rate varied from 82.5% in Glasgow North East to 91.7% in East Renfrewshire.
- 8,236 (73.5%) had a normal result. 2,219 (19.8%) children were referred for further assessment. Of the number referred, 1,028 (23.2%) were from the most deprived areas.
- The highest proportion of children screened that were referred for further investigation, was in Glasgow North East (24.3%) and Glasgow North West (23.5%). The lowest was 14.3% in East Renfrewshire.

7. DIABETIC RETINOPATHY SCREENING

- 63,173 NHS Greater Glasgow and Clyde residents had diabetes in 2014/15, an increase of 30% from 2007/08, when 48,360 residents had diabetes.
- Prevalence of diabetes among NHS Greater Glasgow and Clyde adult residents has gradually increased from 4.3% in 2007/08 to 5.8% in 2014/15.
- The largest proportion of people with diabetes was among the 50 – 79 year olds. This represents 69.0% (43,565) of the total population with diabetes.
- 24 centenarian residents developed diabetes late on life with the average age of diagnosis at 77.
- Prevalence of diabetes has continued to increase across all CHCP areas with the exception of Glasgow North East sector and East Renfrewshire which has remained static at 5.9% and 5.3% respectively.

- Among people with diabetes, 55.2% were male and 44.8% were female.
- That largest majority of people with diabetes were of white origin 80.6% followed by South East Asian origin at 7.4%.
- 25,534 (40.4%) are known to be resident in the most deprived areas compared to 9,079 (14.4%) who live in the least deprived areas.
- 53,325 (84.4%) were eligible for screening and of those, 90.1% were screened.
- 1,761 were referred to Ophthalmology for further investigation.
- 9,848 (15.6%) people were not eligible for screening because they were either permanently or temporarily suspended from the programme.

8. ABDOMINAL AORTIC ANEURYSM SCREENING

- 5,616 men aged 65 were invited to participate in the AAA Screening programme.
- 4,493 (80%) took up screening, exceeding the minimum standard of 70%.
- Lowest uptake overall was 72.3% among residents in the most deprived neighbourhoods while uptake among residents in the least deprived areas was 89%.
- Lowest uptakes were found in Glasgow North East 73.2%; Glasgow North West at 73.5% and Glasgow South at 78.6%.
- 60 men were found to have an aneurysm measuring between 3.00 and 5.4 cm and are currently on surveillance.
- Four men had an aneurysm measuring over 5.5 cm that required surgical assessment and intervention.
- 1.3% required surveillance and 0.1% were referred to secondary care for assessment.